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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/992,079	11/19/2001	Robert A. Roth	DP-306071	9447

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EXAMINER

RIVELL, JOHN A

ART UNIT	PAPER NUMBER
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3753

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DATE MAILED: 08/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/992,079

Applicant(s)

ROTH, ROBERT A.

Examiner

John Rivell

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11/19/01 (appl, IDS) 6/2/03 (IDS).
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 November 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2,3 6) ☐ Other: _____

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Claims 1-20 are pending.

The drawings are objected to as set forth on the attached Draftsperson's Review PTO-948. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 17 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 17 is currently dependent on itself. It is included in the rejection below on the basis that the dependency should be from claim 16.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-9, 11-17, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hutchings in view of Hoover, further in view of Feinberg. The patent to Hutchings discloses "a check valve...comprising: a valve housing (13) adapted to be disposed in an outlet member (flow conduit 9)...; a valve seat (15) formed on said valve housing; a valve member (11, 16) disposed in said valve housing and having a closed position (fig. 2) to engage said valve seat to prevent (fluid) from flowing through the outlet member and an open position (fig. 3) to allow (fluid) to flow through the outlet

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member; and said valve member having a (plurality of) outlet port(s) (19) to allow flow from said valve member when said valve member is in said open position" as claimed in claim 1.

Thus Hutchings discloses all the claimed features with the exception of having utility in a "fuel pump of a vehicle" thus controlling "fuel flow" as well as "a single outlet port" in the valve member.

Firstly, the patent to Hoover discloses that it is known in the art to employ a check valve device 28, located in the outlet conduit of a fuel pump 22 of a vehicle leading to an engine 26 of the vehicle for the purpose of preventing backflow of fuel from the engine to the fuel pump. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ the device of Hutchings as a check valve device in the outlet conduit of a fuel pump feeding fuel to an engine of a vehicle for the purpose of preventing backflow of fuel from the engine to the fuel pump as recognized by Hoover.

Secondly, the patent to Feinberg discloses that it is known in the art to employ a single radial outlet port 35, or 36 in a reciprocating valve member conducting fluid flow from a hollow interior of the valve member to the exterior of the valve member up-on the valve member moving to an open position for the purpose of providing a designed flow rate through the valve (column 3, lines 24-41). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Hutchings a single port of designed size for the purpose of a designed flow rate through the valve as recognized by Feinberg.

Regarding claims 11 and 19, the above applies equally as well.

Regarding claims 2 and 12, in Hutchings "said valve housing (13) has a passageway (12) extending axially therethrough to receive said stem (11)" as claimed.

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Regarding claims 3 and 13, in Hutchings "said valve housing (13) has an enlarged opening at one end (at the right end) of said passageway (12)" as claimed.

Regarding claims 4 and 14, in Hutchings "said valve member (tubular member 11) has a flow port (the interior bore) extending axially therein" as claimed.

Regarding claims 5 and 15, in Hutchings "said outlet port(s 19) extend radially in said valve member (11) and communicates with said flow port" as claimed. In the device of the combination, the "single outlet port (taught by Feinberg will "extend radially" as claimed..

Regarding claims 6 and 16, in Hutchings "a spring (21 is) disposed about said valve member (11) to urge said seal (20) and said valve member (11) toward said valve seat (15)" as claimed.

Regarding claims 7 and 17 (note above), in Hutchings "said spring (21) comprises a coil spring" as claimed.

Regarding claims 8, 11 and 19, in Hutchings "said valve member (at 16) has an annular groove (for receiving seal 20) extending radially therein" as claimed.

Regarding claims 9, 11 and 19, in Hutchings "a seal (20 is) disposed in said groove for contacting said valve seat (15) when said valve member is in said closed position" as claimed.

Regarding claim 20, in Hutchings, "said valve member (tubular member 11) has a flow port (the interior bore therethrough) extending axially into one end thereof and said outlet port(s 19) extends radially through said valve member and communicates with said flow port" as claimed. In the device of the combination the "single outlet port (will) extend radially through said valve member and communicate with said flow port" as claimed.

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Claims 10 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hutchings in view of Hoover and Feinberg as applied to claims 1-9, 11-17, 19 and 20 above, or in the alternative, further in view of Gimby. The patent to Hutchings discloses all the claimed features with the exception of having the seal element be "of an elastomeric material". Rather Hutchings discloses "fibre washer" 20.

Firstly, the patent to Feinberg discloses that it is known in the art to employ a seal element at O-rings 37 or 38. Typically these O-rings are of "an elastomeric material" for the purpose of withstanding repeated use yet maintaining fluid tight closure of the valve. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Hutchings, as modified by Hoover, an "elastomeric" O-ring in place of the fibre washer 20 therein for the purpose of withstanding repeated use yet maintaining fluid tight closure of the valve as recognized by Feinberg.

Alternatively, in the event the seals 37, 38 of Feinberg are considered to be, in all circumstances, not of an elastomeric material, the patent to Gimby discloses that it is known in the art to employ an elastomeric seal an elastomeric O-ring 18 (column 2, lines 65-68) as a seal element on a reciprocating hollow valve element 34 including axial 26 and radial 28 paths for the purpose of withstanding repeated use yet maintaining fluid tight closure of the valve. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Hutchings, as modified by Hoover and Feinberg, an elastomeric material seal element in place of

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seal element 20 of Hutchings for the purpose of withstanding repeated use yet maintaining fluid tight closure of the valve as recognized by Gimby.


The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Rivell whose telephone number is (703) 308-2599. The examiner can normally be reached on Monday –Thursday between 6:30am and 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Bertsch can be reached on (703) 308-0975. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9302 for regular communications and (703) 872-9303 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0861.

j.r.
August 4, 2003


John Rivell
Primary Examiner
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